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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,311	07/07/2003	Timo Kleinwachter	HOE-764	9366
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EXAMINER				
LANG, AMY T				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/615,311

Applicant(s)

KLEINWAECHTER, TIMO

Examiner

AMY T. LANG

Art Unit

3731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-5, 7, 9-20 and 22-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-5, 7, 9-20, and 22-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claims 1, 3-5, 7, 9-20, and 22-27 are pending and claims 2, 6, 8, and 21 are cancelled.

Claim Objections

1. **Claim 1** is objected to because of the following informalities: line 14 recites "extending along a row" which should be replaced with "extending along *the* row" so that it is clear the row refers to the row of teeth previously claimed. Appropriate correction is required.
2. **Claim 3** is objected to because of the following informalities: line 2 recites wherein the "channel extends behind the tooth base at a height which lies within a range" where "height" should be replaced with "depth" as recited on page 10, lines 27-35 of the instant specification. Appropriate correction is required.
3. **Claim 11** is objected to because of the following informalities: line 1 recites "the two holder body channels." However, claim 10, from which claim 11 is dependent, does not recite two holder body channels. Therefore, there is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. **Claims 1, 3-5, 7, 9-20, and 22-27** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 recites wherein each tooth is tetrahedral in line 6. However, it is the examiner's position that the instant specification does not support wherein every tooth is tetrahedral. Figures 2 and 3 of the instant specification disclose every other tooth (42) as tetrahedral. However, the teeth that lie between teeth 42 are not shown as tetrahedral and comprise more than four flanks. Claims 3-5, 7, 9-20, and 22-27 are dependent on claim 1 and therefore are also not supported by the instant specification.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. **Claims 1, 3-5, 7, 9-11, 13-20, and 22** are rejected under 35 U.S.C. 102(b) as being anticipated by Miller et al. (US 5,306,285).

With regard to **claim 1**, Miller et al. (hereinafter Miller) discloses a surgical saw blade for cutting bone (column 1, lines 5-15) comprising a holder body (22, 53) and a row of teeth (25) (Figures 2A and 5A). As shown in Figure 3, the teeth are formed at one end of the holder body and comprise three flanks. Additionally, each tooth in the row of teeth is tetrahedral in shape. The first tooth flanks of every other tooth inherently lie in a plane (Figure 3). Channels are formed between adjacent teeth which are adapted to carry away the cuttings of material (Figure 3). As shown in Figure 3, the channels extend behind the tooth base and connect to troughs (31) (column 3, lines 14-20). Miller teaches the troughs collect the cutting material to increase durability and extended life of the surgical saw blade (column 3, line 66 through column 4, line 17).

The troughs, as shown in Figure 4, comprise an indentation in the holder body. Opening (54) also comprises an indentation in the holder body (Figure 5A). Therefore it is the examiner's position that the troughs and opening overlap the instantly claimed plurality of recesses. As shown in Figure 5A the recesses extend between lateral sides of the holder body since they are all located between the two lateral sides. Additionally, since the channels are connected to the troughs, the channels clearly are connected to at least one recess. The opening (54) extends along the row of teeth and therefore clearly overlaps the instantly claimed holder body channel (Figure 5A).

With regard to **claim 3**, as shown in Figure 3 of Miller, the channels extend behind the tooth base at a depth of between 20% and 60% of the height of the tooth above the base.

With regard to **claims 4 and 5**, as shown in Figure 3 of Miller, the channels are each formed in the form of a trough and are located between non-parallel tooth flanks of adjacent teeth.

With regard to **claim 7**, the holder body opening (54) is behind each tooth base (Figure 5A).

With regard to **claim 9**, the holder body opening is bounded by the row of teeth since the teeth provided an upper edge that serves to confine the holder body opening.

With regard to **claim 10**, as shown in Figure 5A of Miller, the holder body opening (54) is formed between a lower face and an upper face of the holder body (53) since this indentation penetrates through the two faces of the holder body.

With regard to **claim 11**, as shown in Figure 5B, Miller discloses two holder body channels that are parallel.

With regard to **claim 13-15**, as shown in Figure 3, each first tooth flank, those which connect with a trough, is parallel with an upper face of the holder body. Therefore, the first tooth flanks of adjacent teeth are parallel. Additionally, the second and third tooth flanks are arranged at an angle to an upper and lower face of the holder body.

With regard to **claim 16**, the tooth tips (35) are displaced relative to one another with reference to a direction of width of the holder body (Figure 5A).

With regard to **claims 17 and 18**, the holder body extends substantially equidistantly between a first and second surface, the sides of the surgical saw as shown in Figure 4. The first tooth flank protrudes beyond the first or second surface.

With regard to **claim 19**, as shown in Figures 2A and 5A, the first tooth flank is substantially parallel to the first or second surface.

With regard to **claim 20**, as shown in Figure 5B, Miller discloses wherein the width of the row of teeth is 4% to 12% more than the width between the first and second surface, the two opposite lateral sides of the surgical saw.

With regard to **claim 22**, hub (22) comprises a receiving portion that connects to a handpiece which powers and oscillates the surgical saw (Column 4, lines 34-36).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. **Claims 3, 12, and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. (US 5,306,285).

With regard to **claim 3**, if Applicant were to argue that Miller does not specifically disclose the depth of each channel as 20% to 60% of the height of the tooth, it is the examiner position that at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to alter the depth of the channels because Applicant has not disclosed that that a specific depth provides an advantage, is used for a particular purpose or solves a stated problem that Miller is not able to accomplish. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the channel depth of Miller because both channels are able to carry away cutting materials.

With regard to **claim 12**, although Miller does not specifically disclose the depth of the holder body channel with reference to the thickness of the holder body, at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to alter the depth of the holder body channel from 15% to 35% of the holder body thickness because Applicant has not disclosed that this ratio provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the ratio of Miller because the surgical saw blade would still function the same.

With regard to **claim 20**, although Miller does not specifically disclose the thickness of the holder body at the first tooth flanks is between 4% and 12% more than a spacing between the first surface and second surface, at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary

skill in the art to alter the thickness of the holder body and spacing between the tooth flanks because Applicant has not disclosed that this ratio provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the dimensions of Miller because the surgical saw blade would still function the same.

11. **Claims 23-27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller et al. (US 5,306,285) as applied to claims 1 and 20 above, and further in view of Kullmer (US 2002/0133186 A1)..

Miller discloses a surgical saw blade comprising a holder body and a row of teeth. However, Miller does not specifically disclose a plurality of channel-like recesses arranged to form a resilient portion and a stiff portion.

As shown in Figure 1, Kullmer discloses a surgical saw blade with a plurality of channel-like recesses that advantageously allow a user to view the working area ([0019]). Therefore, it would have been obvious for the surgical blade of Miller to comprise a plurality of recesses for the advantage disclosed by Kullmer. These recesses intrinsically produce a resilient portion near the row of teeth since the arrangement and construction of the recesses allows for less flexural rigidity. Therefore, a relatively stiff portion is produced near the proximal end of the surgical saw. As shown in Figure 1, the recesses are also formed symmetrically with reference to an axis of symmetry. Therefore, incorporating the recesses of Kullmer on the

surgical blade of Miller would also produce a resilient portion and stiff portion of the holder body of Miller.

Response to Arguments

12. Applicant's arguments, filed 02/07/2008, with respect to claims 1-20 and 22-27 have been fully considered and are persuasive. The rejections have been withdrawn.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy Lang whose telephone number is (571) 272-9057. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Todd Manahan can be reached on 571-272-4713. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

05/12/2008
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